DOCUMENT RESUME

ED 243 790 SO 015 638

AUTHOR Cox, John W.
TITLE College Art Faculty Attitudes toward Instructional Innovation.
PUB DATE 84
NOTE 33p.; Paper presented at the Annual Meeting of the American Educational Research Association (New Orleans, LA, April 23-27, 1984).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Educational Change; Educational Needs; Educational Research; Educational Theories; Higher Education; *Instructional Improvement; *Instructional Innovation; *Teacher Attitudes; Teacher Effectiveness; *Visual Arts

ABSTRACT

A nationwide study was undertaken to gain insight into the process of instructional innovation within higher education visual arts programs. Existing theory provides little insight into the innovation process within arts programs offered at the college/university level. Moreover, the economic pressures facing higher education and a demographically changing student population make it mandatory that instructional programs in art be receptive to change as a means of ensuring their survival. Fifteen factors related to individual attitudes and demographic attributes were identified as the independent variables of the study. The single dependent variable was the individual faculty member's attitude towards innovation. A questionnaire based on the 15 factors was developed and distributed to a random sample of art faculty in 33 American colleges and universities. Respondents (N=201) indicated their familiarity and experience with as well as future plans for four instructional innovations: (1) team teaching; (2) contract learning; (3) mastery learning; and (4) computer-assisted instruction. Results indicate that a predisposition toward instructional innovation is most likely to occur with art faculty who have favorable attitudes towards innovation, are tenured, see themselves as knowledgeable about innovation, perceive their classroom role as a facilitator rather than as an authority figure, and describe themselves as educators first and artists second. (LP)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
John W. Cox
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ED243790

SO 015 638

College Art Faculty Attitudes Toward Instructional Innovation

John W. Cox

ABSTRACT

This nationwide study was undertaken in order to gain insight into the process of instructional change within higher education visual arts programs. The need for this research was derived from both theoretical and practical concerns. The existing theoretical base relative to innovation provides very little understanding of the dynamics of the innovation process within college/university art programs. On a practical level, the current and future economic pressures facing higher education, coupled with a demographically changing student population, make it mandatory that instructional programs in art be receptive to change as a means of maintaining their credibility and ensuring their survival.

The literature search concentrated on three areas: (1) innovation processes in general, (2) innovation in higher education settings, and (3) instructional innovation within college/university visual arts programs. Based on this review, fifteen factors were identified as the independent variables for the study. Ten of these variables were measures of individual attitudes and beliefs, and the remaining five were demographic attributes. The single dependent variable was the individual faculty member's predisposition toward instructional innovation.

A questionnaire was designed, field-tested, and subsequently used for data collection with a stratified random sample of 201 art faculty in 33 colleges and universities across the United States. Respondents were asked to indicate their familiarity with, actual experience with, and future intentions regarding four instructional innovations: (1) team teaching, (2) contract learning, (3) mastery learning, and (4) computer-assisted instruction.

The dependent variable was measured by combining the individuals' responses to all four innovations cited in the instrument. A multi-phase data analysis was conducted, using multiple regression procedures in order to identify those variables which could most effectively explain innovative behavior. The results indicated that a positive predisposition toward instructional innovation is most likely to occur with college art faculty who:

(1) have a favorable regard for instructional innovations in general;

(2) are fully tenured;

(3) perceive themselves as being knowledgeable about instructional innovations;

(4) are in favor of using evaluation criteria as part of the instructional process;

(5) believe that their appropriate classroom role should be to encourage student self-direction rather than to act as an authority figure; and

(6) describe themselves, professionally, as educators first and artists second.

These six variables, collectively, explain more than thirty-six percent of the variance on the part of the dependent variable. When the four instructional innovations were analyzed separately, certain variables continued to be strong predictors, regardless of the particular innovation in question. Other variables made substantial shifts in strength from one innovation to the next.

The completion of this study marks the first comprehensive, nationwide effort to gain insight into the process of instructional change within college/university visual arts programs. The knowledge gained in the course of this research provides a needed extension to the existing theoretical base and should prove valuable to art school change advocates, in their efforts to prepare for the challenges of current and future decades.

For copies of the full report, please write to the author at the following address:

NTID Applied Art Department
1516 Booth Building
Rochester Institute of Technology
One Lomb Memorial Drive
P.O. Box 9887
Rochester, NY 14623

COLLEGE ART FACULTY ATTITUDES TOWARD INSTRUCTIONAL INNOVATION

By John W. Cox

BACKGROUND

Higher education is in the middle of a decade which has been described in sobering, if not depressing, terms. Both the national press and the academic literature have repeatedly caught our attention with terminology such as decline, stable state, retrenchment, and survival (Ashworth, 1979; Carnegie Council on Policy Studies in Higher Education, 1980; Tyler, 1982. We have been frequently reminded that the traditional population of eighteen-year-old college entrants is shrinking, economic resources are tight, colleges are expected to maintain accountability, faculties are increasingly tenured-in, and federal aid to higher education has become severely constrained (Carnegie Council, 1980; "Reagan Administration Budget", 1983).

These conditions have elicited a number of survival strategies. Tyler (1982) proposes viewing the current state as an opportunity for qualitative growth. Other views focus on the question of enrollment. The American Council on Education has suggested that the necessary enrollments for this decade and beyond will need to come from different segments of the population

than has traditionally been the case - most notably men and women in their late twenties and thirties ("Despite Drop in Number," 1980). By intensifying the recruiting efforts among these non-traditional populations, the A.C.E. suggests, enrollment concerns could be substantially alleviated.

The challenge, however, extends beyond enrollment figures. Institutions are certain to be confronted with the larger qualitative challenge: meeting the educational needs of an extremely diverse population of learners - individuals who vary widely on a number of critical dimensions such as age, educational history, work experience, educational goals, and life priorities (Cross, 1975b, 1981; Knox, 1977, 1979). Thus it becomes clear that if this complex challenge is to be met successfully, rigid perpetuation of traditional practices will not suffice. The instructional effort in particular will need to be responsive to a wide range of individual learners; the mandate for change and innovation is unavoidable.

While these challenges confront higher education as a whole, the specific pressures for adaptation and responsiveness are certain to have different effects on different parts of the total enterprise. In this regard, one particular discipline - the visual arts - warrants special attention. This is due primarily to the uniqueness of this field of study within the more traditional scholarly disciplines. As Mahlmann (1973) points out,

"art to many educators was, and unfortunately often still is, considered a subject apart from the mainstream of education. In fact, it is usually considered something for the highly skilled or talented and has the connotation of an elite subject" (cited in Pletcher, 1975, p. 171).

In the words of Risenhoover and Blackburn (1976), "the artist deals with the particular, the subjective, and the unique object, datum, or experience as opposed to the scholar's search for the universal, the objective, and classifiable objects, data, or experiences" (p. 11). Perkins (1965) characterizes these distinctions as "the different styles of the artistic and scholarly approach to reality" (p. 675).

Because the discipline is unique, the manner in which schools or departments of art confront the challenges of the 1980's may need to be unique as well. Like other disciplines, the art discipline will face increasing pressure to change - to provide instruction that is innovative and responsive to the needs of a newly-defined population of learners. One of the primary contentions of the present research effort is that refusal to change is an open invitation to increasingly difficult times for schools of art. Furthermore, in order to successfully promote change, it is essential that the change advocate understand the dynamics of the change process. As Mayhew (1976) points out,

> innovations and changes will not be attempted or adopted just because materials are available and a need can be demonstrated. Practices and processes in collegiate institutions have grown up over time and tend to persevere unless certain favorable conditions are present and specific techniques are used to encourage innovation and change. (p. 4)

The literature on change and innovation, unfortunately, provides little insight into the dynamics of instructional change within the visual arts discipline. The broader topic of instructional innovation, as it applies across all disciplines, has been the subject of numerous volumes by various investigators such as Brawer (1968), Evans (1970), Havelock (1973), Mayhew (1976), and Zaltman, Florio, and Sikorski (1977). However, the factors which either encourage or discourage instructional innovation in schools of art have, thus far, eluded direct research attention. The present research effort was undertaken as a first step in filling that void.

The general literature on innovation identifies a number of factors which influence the acceptance or rejection of a proposed innovation. Rogers and Shoemaker (1971) classify these factors according to four categories:

1. Innovation factors; the characteristics or qualities of the specific innovation, as perceived by the individual or group to whom it is being introduced.

2. Individual factors; personality traits, attitudes, beliefs, and demographic attributes of the individual who makes the acceptance-rejection decision.
3. Organizational factors; the social setting within which the individual functions, including the organization's norms, values, and role expectations.
4. Process factors; the dynamics of the process by which the individual or group is introduced to the innovation.

METHODS

Because of the critical importance of the faculty member's role in the acceptance or rejection of an instructional innovation, the present study focused on a number of individual-based variables. Other factors related to the innovation, organization, and process were addressed indirectly, in terms of the individual faculty member's perceptions. An extensive survey of the general literature on innovation as well as the literature on innovation in the higher education setting elicited fifteen factors having logical applicability within the college art environment. The independent variables for the study were thus identified as the individual faculty member's:

1. general attitude toward instructional innovation;
2. perceived involvement in decision-making;
3. perception of performance gaps in existing instructional practice;
4. beliefs regarding authority roles in the classroom;
5. perceived job security;
6. self-rating of own innovativeness;
7. perception of institutional support for change and innovation;
8. beliefs regarding the use of evaluation criteria;
9. professional role commitment;
10. perceived knowledge of instructional innovations;
11. information-seeking activities regarding instructional change and innovation;
12. age;
13. number of years spent as a full-time college art faculty member;
14. number of years in present institution as a full-time art faculty member; and
15. tenure status.

The single dependent variable for the study was the faculty member's predisposition toward instructional innovation. In order to develop a measure of predisposition, it was necessary to identify a small selection of innovations to which the individual

faculty member could respond. On the basis of innovation characteristcs described by Edling (1970), Engler (1971), Goodlad (1976), and Talmage (1975), a number of innovations were identified which have been utilized on college campuses within the past decade. From these, four were selected as representing a range of innovation-types and characteristics:

1. team teaching;
2. contract learning;
3. mastery learning; and
4. computer-assisted instruction.

A questionnaire was designed, field-tested, and subsequently used for data collection with a stratified random sample of 201 art faculty in 33 colleges and universities across the United States. Respondents were asked to indicate their familiarity with, actual experience with, and future intentions regarding each of the four instructional innovations. These responses were combined to provide the dependent variable measure. The independent variables were measured by a combination of Likert-type responses - for the attitudinally-oriented variables - and straightforward response items - for the demographic variables.

A multi-phase data analysis was conducted, using multiple regression procedures to identify those independent variables which could most effectively "explain" an individual faculty member's predisposition toward the four innovations in question. Initially, correlation matrices and R-square tables were constructed for the main dependent variable with each of the independent variables. These same statistics were then computed, treating each of the four innovations as "segmented" dependent variables. Regression equations were developed in order to facilitate the analysis of each independent variable from a number of statistical perspectives.

Finally, a "model" was constructed, utilizing the independent variables which, in combination, provided the maximum explanation of variance (R-square) on the part of the dependent variable.

RESULTS

The independent variables comprising the final model are:

1. the individual's general attitude toward instructional innovation;
2. the individual's tenure status;

3. the individual's self-reported knowledge of instructional innovations, in comparison to his/her art faculty colleagues;
4. the individual's beliefs regarding the use of evaluation criteria as part of the instructional process;
5. the individual's beliefs regarding the locus of authority within the classroom; and
6. the individual's professional role commitment, i.e., his/her identification with a primary professional role as an artist or as an educator.

Together, these six variables explain approximately thirty-seven percent of the variance on the part of the main dependent variable - predisposition toward instructional innovation. The respective contributions of each of the six variables to the full model are shown in Table 1.

TABLE 1

Predisposition Toward Instructional Innovation: Variance Explained by Six Independent Variables.

Independent Variables	R-Square Added	Total Adjusted R-Square
General Attitude Toward Instructional Innovation	.169	.159
Tenure Status	.116	.267
Perceived Knowledge of Instructional Innovations	.076	.337
Beliefs Regarding the use of Evaluation Criteria	.024	.354
Beliefs Regarding Authority Roles in the Classrooms	.017	.363
Professional Role Commitment	.010	.366

As the data in Table 1 indicate, the greatest contributions to explanation of variance are made by two variables: general attitude toward instructional innovation and tenure status. A substantial contribution is made by perceived knowledge of instructional innovations, and the remaining three variables add very modest amounts to R-square.

When the four separate instructional innovations are entered into the analysis as segmented dependent variables, the percentage of explained variance diminishes substantially:

- For team teaching, thirteen percent of the variance is explained by five independent variables.
- For contract learning, twenty-six percent of the variance is explained by seven independent variables.
- For mastery learning, eighteen percent of the variance is explained by seven independent variables.
- For computer-assisted instruction, fifteen percent of the variance is explained by five independent variables.

The independent variables germane to each innovation, and their respective contributions to explanation of variance, are shown in Tables 2, 3, 4, and 5.

TABLE 2

Predisposition Toward Team Teaching:
Variance Explained by Five Independent Variables.

Independent Variables	R-Square Added	Total Adjusted R-Square
Perceived Knowledge of Instructional Innovations	.056	.046
Perceived Involvement in Decision-Making	.034	.072
Perception of Performance Gaps in Existing Instructional Practice	.035	.098
Beliefs Regarding Authority Roles in the Classroom	.023	.112
General Attitude Toward Instructional Innovation	.028	.132

TABLE 3

Predisposition Toward Contract Learning:
Variance Explained by Seven Independent Variables.

Independent Variables	R-Square Added	Total Adjusted R-Square
Perceived Knowledge of Instructional Innovations	.113	.104
General Attitude Toward Instructional Innovation	.075	.171
Beliefs Regarding Authority Roles in the Classroom	.042	.206
Tenure Status	.027	.225
Perceived Involvement in Decision-Making	.025	.243
Perceived Job Security	.020	.255
Perception of Performance Gaps in Existing Instructional Practice	.012	.260

TABLE 4

Predisposition Toward Mastery Learning:
Variance Explained by Seven Independent Variables.

Independent Variables	R-Square Added	Total Adjusted R-Square
Information-Seeking Activities Regarding Instructional Change and Innovation	.054	.044
Number of Years Spent as a Full-time College Art Faculty Member	.048	.084
General Attitude Toward Instructional Innovation	.045	.120
Beliefs Regarding the Use of Evaluation Criteria	.020	.131
Beliefs Regarding Authority Roles in the Classroom	.022	.144
Perception of Performance Gaps in Existing Instructional Practice	.024	.160
Number of Years in Present Institution as a Full-time Art Faculty Member	.024	.176

TABLE 5

Predisposition Toward Computer-Assisted Instruction: Variance Explained by Five Independent Variables.

Independent Variables	R-Square Added	Total Adjusted R-Square
Self-rating of Own Innovativeness	.077	.067
Beliefs Regarding the Use of Evaluation Criteria	.061	.119
Professional Role Commitment	.025	.135
General Attitude Toward Instructional Innovation	.017	.143
Perceived Knowledge of Instructional Innovations	.011	.145

DISCUSSION

As the data displayed in all five tables indicate, the variables in this study function more effectively in explaining an overall predisposition toward instructional innovation than for any one of the innovations cited. When a specific innovation is targetted, more variance is explained for contract learning (R-Square=26%) than for any of the other single innovations. Predisposition toward instructional innovations having characteristics similar to those embodied in contract learning would have the greatest likelihood of explanation by the variables utilized in the present study.

The shifting pattern of independent variables among the different innovations suggests that art faculty responses to specific innovations are explained by different factors, with varying degrees of strength. Some variables such as knowledge of instructional innovations, general attitude toward instructional innovation, and beliefs regarding authority roles seem to emerge with moderate consistency across all innovations, but several other independent variables function differently for each innovation.

With regard to the model for overall predisposition, each of the six independent variables exhibited a positive relationship to the main dependent variable. Thus, it is possible to construct a description of "the innovative art instructor." This should be interpreted cautiously, of course, since such a description provides only thirty-seven percent of the full explanation. In general, this "model innovator" is one who:

1. expresses a positive attitude toward the use of new innovative methods of instruction in the visual arts classroom;
2. is fully tenured;
3. views him/herself as being fairly knowledgeable about instructional innovations, in comparison to his/her art faculty colleagues;
4. believes that the use of evaluation criteria is appropriate and beneficial to the instructional process in the visual arts;
5. believes that his/her role in the classroom is not primarily to act as an authority figure, but is rather to encourage student self-direction; and
6. perceives him/herself as being primarily a professional educator, and secondarily a professional artist.

It would seem instructive here to note the conditions under which these six variables emerged for the final model, out of an initial list of fifteen independent variables. As indicated in Tables 2, 3, 4, and 5, there is a total of seven variables which had not entered the model for the main dependent variables but did emerge when the four innovations were targetted separately.

The variable, perception of performance gaps in existing instructional practice, contributed to explanation of variance for team teaching, contract learning, and mastery learning. Perceived involvement in decision-making became important with regard to team teaching and contract learning. Self-rating of own innovativeness emerged as the strongest variable for computer-assisted instruction, and perceived job security appeared once - for contract learning. Three other variables became prominent with regard to mastery learning alone:

1. information-seeking activities regarding instructional change and innovation;
2. number of years spent as a full-time college art faculty member; and
3. number of years in present institution as a full-time art faculty member.

The six variables comprising the final model are, in some instances, congruent and, in other instances, contrary to prior findings. The importance of a faculty member's general attitude toward instructional innovation has been cited repeatedly and the present results further substantiate this finding (Durzo, 1978; de la Paz, 1980; Rogers and Shoemaker, 1971). However, caution should be taken with Dill and Friedman's (1978) assertion that success with one innovation encourages further attempts with other innovations. While this position seems intuitively reasonable, the present evidence suggests that the specific factors associated with one's predisposition are likely to vary among different innovations.

The present findings relative to tenure status are in contrast to much of the evidence reported in the literature. Tenure status has a powerful and positive relationship to the dependent variable, indicating that the possession of full tenure status is associated with a higher predisposition toward instructional innovation. While some existing evidence supports this finding, (Blackburn, 1972; Woodring, 1973), several investigators such as Kazlow and Giacquinta (1974), Levine (1980), and Zaltman, et al. (1977), argue that increased social system membership discourages innovative behavior. The present evidence suggests that within at least one academic discipline - the visual arts - the social system apparently functions in such a way that the achievement of tenure may actually encourage risk-taking or experimentation in the classroom.

Finally, two variables - age and perception of institutional support for change and innovation - did not contribute to explanation of variance for either the main dependent variable or any of the segmented dependent variables. An earlier stage of the analysis indicated that the age variable was strongly correlated with a number of other independent variables, specifically those which reflect time in the profession. Of these, tenure alone became prominent in the final model, and its association with age (R=.547) tended to minimize the importance of age as an independent contributor to explanation of variance.

Perception of institutional support for change and innovation exhibited several significant negative correlations with other independent variables. These correlations suggest that faculty who (1) are committed professionally to an instructional role, (2) favor the use of evaluation criteria, and (3) perceive performance gaps in their existing instruction, also perceive a lack of administrative support for innovation. These relationships may provide some insight into the nature of administrative support for innovation in schools of art. Many faculty who exhibit innovation-prone attitudes apparently find their administrations to be offering little in the way of incentive for their innovative efforts. This would coincide with House's (1974) finding that the reward system shapes the faculty member's perception of administrative support for innovation.

The importance of the variable, "perceived knowledge of instructional innovations," is consistent with the widely-held position that knowledge of innovations and use of innovations are strongly related (Cole, 1978; Durzo, 1977, 1978; Eraut, 1975). Still to be examined in depth is the question of cause-and-effect. Does knowledge of innovations encourage an individual to attempt their use, or does a certain attitude, or openness, cause the individual to become knowledgeable about innovations? It is useful to examine the relationship of this variable to two other independent variables. This relationship seems to suggest that faculty who seek out information about innovations become knowledgeable about those innovations, view themselves as "innovative," and, in fact, engage in innovative behavior. This paradigm is intuitively reasonable, however the question of the "initial motivator" prevails - suggesting an area warranting further investigation.

Faculty attitudes toward the use of evaluation criteria exhibit a strong association with predisposition toward instructional innovation. Faculty who support the use of evaluation criteria tend to be favorable toward innovations such as those cited for this study. Much of the existing literature observes a general faculty reluctance to utilize evaluation criteria (Cole, 1978), and several investigators (Dace, 1978; Davis, 1978; Eisner, 1971) find this concern to be present among visual art faculty specifically. However, until the present effort, little attention had been given to the relationship

between this factor and the individual's proclivity toward innovation. Furthermore, the present results do not corroborate the earlier observations of faculty reluctance, since the distribution of responses on this variable is somewhat uniform. While there are more strongly negative than strongly positive positions taken, the overall response curve clearly does not reflect a predominantly negative view.

Beliefs regarding authority roles in the classroom are shown to be positively related to faculty predisposition toward instructional innovation. Faculty who perceive themselves to be classroom authority figures are less likely to favor instructional innovation. As a group, the faculty in the present study are inclined toward the teacher-as-authority position. This response pattern suggests that college art faculty may have classroom authority views similar to college faculty in general - as described by Brown and McIntyre (1982), Cross (1975a), Gaff (1976), and Zaltman, et al. (1977).

The final variable in the model, professional role commitment, reflects the individual faculty member's perception of his/her own professional priorities. Approximately half of all the faculty in the study responded that their role as professional artists takes priority over their instructional role. This finding is quite consistent with Cole's (1978) observation that "the conflict between research and teaching appears to be a continuing one with little incentive being given to the faculty members to

BEST COPY AVAILABLE

address themselves to eliminating teaching deficiencies" (p. 6). The importance of this variable in explaining attitudes toward innovation lends further support to the findings of many investigators, including Cross (1976a, 1976b), Gaff (1976), Kozma (1979), Mayhew (1976), and others.

The purpose of this research effort was to gain insight into the factors which predispose a college art faculty member toward the use of instructional innovations. The findings appear to have important implications relative to the process of instructional innovation in college/university visual arts programs. Many of the specific results are congruent with the existing literature, thus suggesting that previous research findings across multiple disciplines may be applicable to the art discipline. Other results provide new or contrasting views, especially on issues such as the effect of tenure and faculty attitudes toward the use of evaluation criteria. These findings suggest that the dynamics of instructional change within the art discipline may be different from those in other disciplines.

The relationships between the faculty member's perception of institutional support for change and innovation and several other independent variables - as discussed earlier - would appear to be an especially interesting finding. If the explanation given earlier is plausible, the implication is that faculty who feel a genuine need for instructional innovation will find a way to initiate it, with or without the support of their administrations.

Clearly, a number of innovation-prone faculty in the present study perceived their institutions as providing only a mediocre level of support.

As the mandate for change grows stronger throughout the remainder of this century, the incentives and rewards for innovative instructional efforts on the part of college art faculty will become a prime concern. When college art administrators identify and dedicate tangible resources to the promotion of instructional innovation, faculty may perceive support for their efforts. When tenure, promotion, and salary depend substantially on a faculty member's efforts to innovate and improve his/her instruction, faculty may find tangible reasons for making effective instruction a top priority. When these changes occur, schools of art will become strengthened for the challenges of the future. Cole (1978) further emphasizes the point:

> The successful use of innovative instructional methods will widen further the gap between the strongest institutions and the weakest and may accelerate the process that in biological evolution we call survival of the fittest. (p. 64)

If schools of art are to prosper and survive, the new test of "fitness" may very well be their ability to attract and hold creative individuals who want to teach, who view themselves as professional educators, and who proceed in the knowledge that

their institutions are tangibly supportive of innovative efforts in the classroom. Meeting such a challenge will require drastic changes in the way schools of art function, and the changes are certain to be costly. But the alternative - clinging to outmoded traditions in the face of changing conditions - is likely to be far more costly.

REFERENCES

Ashworth, K. H. American Higher Education in Decline. College Station: Texas A & M University Press, 1979.

Blackburn, R. T. Tenure: Aspects of Job Security on the Changing Campus. Atlanta: Southern Regional Education Board, July, 1972. (ERIC Document Reproduction Service No. ED 068 005).

Brawer, F. B. Personality Characteristics of College and University Faculty: Implications for the Community College. American Association of Junior Colleges, 1968. (ERIC Document Reproduction Service No. ED 026 048).

Brown, S. & McIntrye, D. "Influences Upon Teachers' Attitudes to Different Types of Innovation: A Study of Scottish Integrated Science". Curriculum Inquiry, 1982, 12, (1), 35-51.

Carnegie Council on Policy Studies in Higher Education. Three Thousand Futures: The Next Twenty Years for Higher Education. San Francisco: Jossey-Bass, 1980.

Cole, C. C. To Improve Instruction. ERIC/Higher Education Research Report Number 2, 1978. American Association for Higher Education. (ERIC Document Reproduction Service No. ED 153 583).

Cross, K. P. "Learner-Centered Curricular." In D. W. Vermilye (Ed.), Learner-Centered Reform: Current Issues in Higher Education. San Francisco: Jossey-Bass, 1975a.

Cross, K. P. "New Forms for New Functions." In D. W. Vermilye (Ed.), Lifelong Learners: A New Clientele for Higher Education. San Francisco: Jossey-Bass, 1975b.

Cross, K. P. "The Instructional Revolution." In D. W. Vermilye (Ed.), Individualizing the System: Current Issues in Higher Education. San Francisco: Jossey-Bass, 1976a.

Cross, K. P. New Roles for College Teachers. Washington, D. C.: American Association of Community and Junior Colleges, 1976b. (ERIC Document Reproduction Service No. ED 121 403).

Cross, K. P. Adults as Learners: Increasing Participation and Facilitating Learning. San Francisco: Jossey-Bass, 1981.

Dace, D. "An Approach for Initiating Staff Involvement in the Design of a Behaviorally Oriented Program of Visual Arts Education (K-12)." In D. J. Davis (Ed.), Behavioral Emphasis in Art Education. Reston, Va.: National Art Education Association, 1978.

Davis, D. J. (Ed.) Behavioral Emphasis in Art Education. Reston, Va.: National Art Education Association, 1978.

"Despite Drop in Number of 18-Year Olds, College Rolls Could Rise During the 1980's". The Chronicle of Higher Education, April 21, 1980, p. 1, 11.

Dill, D. D. & Friedman, C. P. An Analysis of Frameworks for Research on Change and Innovation in Higher Education. Association for the Study of Higher Education, 1978. (ERIC Document Reproduction Service No. ED 163 825).

Durzo, J. J. Instructional Development in the New Hampshire College and University Council: The Creation of a Setting. (Doctoral Dissertation, Syracuse University, 1976). Dissertation Abstracts International, 1977, 38 (University Microfilms No. 77-24, 365).

Durzo, J. J. Effecting Change in Higher Education: A Review of Literature with Implications for Instructional Development Programs. Research Report No. 14, Syracuse University, Center for Instructional Development, 1978.

Edling, J. V. Individualized Instruction: A Manual for Administrators. Corvallis, Oregon: Teaching Research Division, Oregon State System of Higher Education, 1970.

Eisner, E. W. Confronting Curriculum Reform. Boston: Little, Brown & Co., 1971.

Engler, D. Independent Learning Systems - Their Production and International Transfer. (Background paper for conference) Paris: OECD/CERI, 1971.

Fraut, M. "Promoting Innovation in Teaching and Learning: Problems, Processes and Institutional Mechanisms." Higher Education, 1975, 4, (1), 13-26.

Evans, R. I. Resistance to Innovation in Higher Education. San Francisco: Jossey-Bass, 1970.

Gaff, J. G. Toward Faculty Renewal. San Francisco: Jossey-Bass, 1976.

Goodlad, J. I. Facing the Future: Issues in Education and Schooling. New York: McGraw-Hill, 1976.

Havelock, R. G. The Change Agent's Guide to Innovation in Education. Englewood Cliffs, N. J.: Educational Technology Publications, 1973.

House, E. R. The Politics of Educational Innovation. Berkeley: McCutchan, 1974.

Kazlow, C. & Giacquinta, J. Faculty Receptivity to Organizational Change. American Educational Research Association, 1974. (ERIC Document Reproduction Service No. ED 090 847).

Knox, A. B. Adult Development and Learning: A Handbook on Individual Growth and Competence in the Adult Years for Education and the Helping Professions. San Francisco: Jossey-Bass, 1977.

Knox, A. B. (Ed.). Enhancing Proficiencies of Continuing Educators. (New Directions for Continuing Education). San Francisco: Jossey-Bass, 1979.

Kozma, R. B. "Communication, Rewards, and the Use of Classroom Innovations." Journal of Higher Education, 1979, 50, (6), 761-771.

Levine, A. Why Innovation Fails. Albany: State University of New York Press, 1980.

Mayhew, L. B. How Colleges Change: Approaches to Academic Reform. Stanford, Calif.: Stanford University, School of Education, 1976. (ERIC Document Reproduction Service No. ED 125 607).

de la Paz, P. Administrators in Land Grant Colleges of Agriculture: An Analysis of Their Characteristics and Innovativeness. Doctoral Dissertation, Syracuse University, 1980).

Perkins, J. "The University and the Arts." Teachers College Record, 1965, 671-678.

Pletcher, R. E. "Art Education: Overview and Prospectus" Peabody Journal of Education, 1975, 52, (3), 171-172.

"The Reagan Administration's Budget: Some Effects on Higher Education". The Chronicle of Higher Education, XXV, 22, Feb. 9, 1983, pp. 1, 13.

Risenhoover, M. & Blackburn, R. Artists as Professors. Urbana: University of Illinois Press, 1976.

Rogers, E. M. & Shoemaker, F. F. Communication of Innovations: A Cross-Cultural Approach. New York: The Free Press, 1971.

Talmage, H. Systems of Individualized Education. Berkeley, Calif.: McCutchan, 1975.

Tyler, R. W. "Dynamic Response in a Time of Decline." Phi Delta Kappan, 1982, 655-658.

Woodring, P. "When Should a Professor Retire?" The Chronicle of Higher Education. December, 1973, p. 24.

Zaltman, G., Florio, D. & Sikorski, L. Dynamic Educational Change. New York: The Free Press, 1977.